Index of Authors

DEGOKE, G. O. Characteristics of staphylococci isolated from man, poultry and some other animals 97

HMAD, S. *see* BHATNAGAR, R. K.

L-AZAWI, S. K. *see* AL-GHAZALI, M. R.

L-GHAZALI, M. R. & AL-AZAWI, S. K. Detection and enumeration of *Listeria monocytogenes* in a sewage treatment plant in Iraq 251

LEKSIC, S. *see* BOCKEMÜHL, J.

LEKSIC, V. *see* BOCKEMÜHL, J.

NDERSON, L. *see* GORMAN, S. P.

ATTERSBY, N. S. *see* WARDELL, J. N.

ERG, J. D., ROBERTS, P. V. & MATIN, A. Effect of chlorine dioxide on selected membrane functions of *Escherichia coli* 213

EST, M. G. *see* STOUT, J. E.

HATNAGAR, R. K., AHMAD, S., MUKERJI, K. G. & SUBRAMANIAN, T. A. V. Pyridine nucleotides and redox state regulation of aflatoxin biosynthesis in *Aspergillus parasiticus* NRRL 3240 135

HATNAGAR, R. K., AHMAD, S., MUKERJI, K. G. & VENKITASUBRAMANIAN, T. A. Nitrogen metabolism in *Aspergillus parasiticus* NRRL 3240 and *A. flavus* NRRL 3537 in relation to aflatoxin production 203

HATT, Y. B. *see* DIAS, F. F.

OCKEMÜHL, J., ROCH, K., WOHLERS, B., ALEKSIC, V., ALEKSIC, S. & WOKATSCH, R. Seasonal distribution of facultatively enteropathogenic vibrios (*Vibrio cholerae*, *Vibrio mimicus*, *Vibrio parahaemolyticus*) in the freshwater of the Elbe River at Hamburg 435

BOM, I. J., SMELT, J. P. P. M., KERSTERS, K. & VERRIPS, C. T. Identification and grouping of *Clostridium botulinum* strains by numerical analysis of their electrophoretic protein patterns 483

BOZZINI, J. P., KOHN, E. S., JOSEPH, A., HERSZAGE, L. & CHIRIFE, J. Submicroscopical changes in *Klebsiella pneumoniae* cells treated with concentrated sucrose and polyethylene glycol 400 solutions 375

BRAZIER, J. S. A note on ultra-violet red fluorescence of anaerobic bacteria *in vitro* 121

BRITZ, T. J. *see* PRETORIUS, I. S.

BURNETT, A. M., EZZELL, J. W., SINGH, J., ZIPPERLE, G. F. & DOYLE, R. J. Induced release of *Bacillus* spores from sporangia by sodium sulphate 337

CAMPBELL, R. *see* CAPPER, A. L.

CAPPER, A. L. & CAMPBELL, R. The effect of artificially inoculated antagonistic bacteria on the prevalence of take-all disease of wheat in field experiments 155

CARRANZA, M. M., ROSAS, S. B. & GHITTONI, N. E. Molecular composition of *Rhizobium meliloti* when parathion was added at the start of incubation 9

CHAKRABARTI, S. K., MISHRA, A. K. & CHAKRABARTTY, P. K. A note on physiological characteristics and genetic relatedness of a fast-growing *Rhizobium* from stem nodule of *Aeschynomene aspera* L 463

CHAKRABARTTY, P. K. *see* CHAKRABARTI, S. K.

CHAKRABARTY, S. L. *see* SEN, S.

CHESSON, A., STEWART, C. S., DALGARNO, K. & KING, T. P. Degradation of isolated grass mesophyll, epidermis and fibre cell walls in the rumen and by cellulolytic rumen bacteria in axenic culture 327

CHIRIFE, J. *see* BOZZINI, J. P.

CHOLETTE, H. *see* MCKELLAR, R. C.

CRAWFORD, I. & RUSSELL, C. Comparative adhesion of seven species of streptococci isolated from the blood of patients with sub-acute bacterial endocarditis to fibrin-platelet clots *in vitro* 127

DADD, A. H. & RUMBELOW, J. E. Germination of spores of *Bacillus subtilis* var. *niger* following exposure to gaseous ethylene oxide 425

DALGARNO, K. *see* CHESSON, A.

DAVIES, R. *see* OBAFEMI, A.

DAY, M. J. *see* LARKIN, M. J.

DE KOCK, M. J. *see* PRETORIUS, I. S.

DELLAGLIO, F. & TORRIANI, S. DNA-DNA homology, physiological characteristics and distribution of lactic acid bacteria isolated from maize silage 83

DERRICK, C. M. *see* MACKEY, B. M.

DIAS, F. F., SHAIKH, M.-K. G., BHATT, Y. B., MODI, D. C. & SUBRAMANYAM, V. R. Tunicamycin-resistant mutants of *Bacillus amyloliquefaciens* are deficient in amylase, protease and penicillinase synthesis and have altered sensitivity to antibiotics and autolysis 271

DONOGHUE, H. D. *see* HUDSON, D. E.

DOYLE, R. J. *see* BURNETT, A. M.

EINARSSON, H. & SNYGG, B. G. Niacin assay by monitoring changes in electrical conductance caused by microbial growth 15

EL-MANSI, E. M. T. Survey of *p*-cresol assimilating bacteria: Characterization and identification of a *p*-cresol utilizing bacterium 545
EL-MOUG, T. *see* ISMAEEL, N.
ENGLYST, H. N. *see* MACFARLANE, G. T.
EZZELL, J. W. *see* BURNETT, A. M.
FAGERBERG, D. G. *see* MOLITORIS, E.
FLEET, G. H. *see* HEARD, G. M.
FORSÉN, R. I. *see* RIMPILÄINEN, M. A.
FRASER, T. W. & GILMOUR, A. Scanning electron microscopy preparation methods: their influence on the morphology and fibril formation in *Pseudomonas fragi* (ATCC 4973) 527
FURR, J. R. *see* ISMAEEL, N.
FURUSE, K. *see* HAVELAAR, A. H.
GADRE, R. V., RANADE, D. R. & GODBOLE, S. H. A note on survival of salmonellas during anaerobic digestion of cattle dung 93
GARDENER, S. *see* JONES, J. G.
GHITTONI, N. E. *see* CARRANZA, M. M.
GILMOUR, A. *see* WALKER, S. J. *also* FRASER, T. W.
GODBOLE, S. H. *see* GADRE, R. V.
GOODFELLOW, M. *see* SADDLER, G. S.
GORMAN, S. P., MCCAFFERTY, D. F., WOOLFSON, A. D. & ANDERSON, L. Decrease in adherence of bacteria and yeasts to human mucosal epithelial cells by noxythiolin *in vitro* 311
GORMAN, S. P., MCCAFFERTY, D. F., WOOLFSON, A. D. & ANDERSON, L. Inhibition of hyphal development and kill of *Candida albicans* blastospores by noxythiolin *in vitro* 319
GRIFFITHS, M. W. *see* PHILLIPS, J. D.
HAMBLETON, P. *see* REYNOLDS, D.
HARA, S. *see* IMADA, C.
HARDING, S. E. & JOHNSON, P. The Brownian diffusion of dormant and germinating spores of *Bacillus megaterium* 227
HARDON, A. P. *see* MOSSEL, D. A. A.
HAVELAAR, A. H., FURUSE, K. & HOGEBOOM, W. M. Bacteriophages and indicator bacteria in human and animal faeces 255
HEARD, G. M. & FLEET, G. H. Evaluation of selective media for enumeration of yeasts during wine fermentation 477
HENDSON, M. & THOMSON, J. A. Expression of an agrocin-encoding plasmid of *Agrobacterium tumefaciens* in *Rhizobium meliloti* 147
HERSZAGE, L. *see* BOZZINI, J. P.
HOGEBOOM, W. M. *see* HAVELAAR, A. H.
HOLDING, A. L. *see* THOMPSON, J. K.
HOLMES, B. Identification and distribution of *Pseudomonas stutzeri* in clinical material 401
HSIEH, Y-L. & MERRY, J. The adherence of *Staphylococcus aureus, Staphylococcus epidermidis* and *Escherichia coli* on cotton, polyester and their blends 535
HUDSON, D. E., DONOGHUE, H. D. & PERRONS, C. J. A laboratory microcosm (artificial mouth) for the culture and continuous pH measurement of oral bacteria on surfaces 301
HUGHES, I. K. *see* WONG, W. C.
HYMAN, L. J. *see* PEROMBELON, M. C. M.
IMADA, C., MAEDA, M., HARA, S., TAGA, N. & SIMIDU, U. Purification and characterization of subtilisin inhibitors 'Marinostatin' produced by marine *Alteromonas* sp. 469
ISHIZAKI, K., SHINRIKI, N. & MATSUYAMA, H. Inactivation of *Bacillus* spores by gaseous ozone 68
ISMAEEL, N., EL-MOUG, T., FURR, J. R. & RUSSELL, A. D. Resistance of *Providencia stuartii* to chlorhexidine: A consideration of the role of the inner membrane 361
OHNSON, P. *see* HARDING, S. E.
JONES, J. G., GARDENER, S., SIMON, B. M. & PICKUP, R. W. Antibiotic resistant bacteria in Windermere and two remote upland tarns in the English Lake District 443
JONES, J. G., GARDENER, S., SIMON, B. M. & PICKUP, R. W. Factors affecting the measurement of antibiotic resistance in bacteria isolated from lake water 455
JOSEPH, A. *see* BOZZINI, J. P.
JUUTINEN, K. M. S. *see* RIMPILÄINEN, M. A.
KAUR, P. Survival and growth of *Bacillus cereus* in bread 513
KERSTERS, K. *see* BOM, I. J.
KING, T. P. *see* CHESSON, A.
KOHN, E. S. *see* BOZZINI, J. P.
KRICHEVSKY, M. I. *see* MOLITORIS, E.
KROLL, R. G. & RODRIGUES, U. M. Prediction of the keeping quality of pasteurized milk by the detection of cytochrome c oxidase 21
LACEY, J. *see* MAGAN, N.
LARKIN, M. J. & DAY, M. J. The metabolism of carbaryl by three bacterial isolates, *Pseudomonas* spp. (NCIB 12042 & 12043) and *Rhodococcus* sp. (NCIB 12038) from garden soil 233
LATEGAN, P. M. *see* PRETORIUS, I. S.
LING, J. R. *see* MASSON, H. A.
LOVE, A. J. W. & RAWSON, D. M. A note on the effects of associated micro-organisms on the growth and nitrogenase activity of the cyanobacterium *Anabaena cylindrica* 143
MACFARLANE, G. T. & ENGLYST, H. N. Starch utilization by the human large intestinal microflora 195
MACKEY, B. M. & DERRICK, C. M. Peroxide sensitivity of cold-shocked *Salmonella typhimurium* and *Escherichia coli* and its relationship to minimal medium recovery 501

MAEDA, M. *see* IMADA, C.
MAGAN, N. & LACEY, J. Water relations and metabolism of propionate in two yeasts from hay 169
MAGAN, N. & LACEY, J. The effects of two ammonium propionate formulations on growth *in vitro* of *Aspergillus* species isolated from hay 221
MASSON, H. A. & LING, J. R. The *in vitro* metabolism of free and bacterially-bound 2,2′-diaminopimelic acid by rumen micro-organisms 341
MATIN, A. *see* BERG, J. D.
MATSUYAMA, H. *see* ISHIZAKI, K.
MCCAFFERTY, D. F. *see* GORMAN, S. P.
MCKELLAR, R. C. & CHOLETTE, H. Possible role of calcium in the formation of active extracellular proteinase by *Pseudomonas fluorescens* 37
MERRY, J. *see* HSIEH, Y-L.
MINNIKIN, D. E. *see* SADDLER, G. S.
MISHRA, A. K. *see* ROY, S. K. *also* CHAKRABARTI, S. K.
MODI, D. C. *see* DIAS, F. F.
MOLITORIS, E., KRICHEVSKY, M. I., FAGERBERG, D. J. & QUARLES, C. L. Effects of dietary chlortetracycline on the antimicrobial resistance of porcine faecal streptococcaceae 111
MOLITORIS, E., KRICHEVSKY, M. I., FAGERBERG, D. J. & QUARLES, C. L. Effects of dietary chlortetracycline on the antimicrobial resistance of broiler faecal Streptococcaceae 185
MORAN, A. P. & UPTON, M. E. A comparative study of the rod and coccoid forms of *Campylobacter jejuni* ATCC 29428 103
MOSSEL, D. A. A., VAN DER ZEE, H., HARDON, A. P. & VAN NETTEN, P. The enumeration of thermotrophic types amongst the Enterobacteriaceae colonizing perishable foods 289
MUKERJI, K. G. *see* BHATNAGAR, R. K.
NANDA, G. *see* ROY, S. K.
NES, I. F. *see* VON HUSBY, K. O.
NISKASAARI, K. *see* RIMPILÄINEN, M. A.
NURMIAHO-LASSILA, E-L. *see* RIMPILÄINEN, M. A.
O'DONNELL, A. G. *see* SADDLER, G. S.
OBAFEMI, A. & DAVIES, R. The destruction of *Salmonella typhimurium* in chicken exudate by different freeze-thaw treatments 381
OWENS, J. D. & WACHER-VIVEROS, M. C. Selection of pH buffers for use in conductimetric microbiological assays 395
PEROMBELON, M. C. M. & HYMAN, L. J. A rapid method for identifying and quantifying soft rot erwinias directly from plant material based on their temperature tolerances and sensitivity to erythromycin 61
PERRONS, C. J. *see* HUDSON, D. E.
PHILLIPS, J. D. & GRIFFITHS, M. W. Estimation of Gram-negative bacteria in milk: A comparison of inhibitor systems for preventing Gram-positive bacterial growth 491
PICKUP, R. W. *see* JONES, J. G.
PITON, C. *see* RICHARD, J.
POTGIETER, H. J. *see* PRETORIUS, I. S.
PRETORIUS, I. S., DE KOCK, M. J., BRITZ, T. J., POTGIETER, H. J. & LATEGAN, P. M. Numerical taxonomy of α-amylase producing *Bacillus* species 351
QUARLES, C. L. *see* MOLITORIS, E.
QUESNEL, L. B. *see* RHODES, P.
RANADE, D. R. *see* GADRE, R. V.
RAWSON, D. M. *see* LOVE, A. J. W.
REYNOLDS, D., TRANTER, H. S. & HAMBLETON, P. Scaled-up production and purification of *Clostridium perfringens* type A enterotoxin 517
RHODES, P. & QUESNEL, L. B. Comparison of Muller-Kaufmann tetrathionate broth with Rappaport-Vassiliadis (RV) medium for the isolation of salmonellas from sewage sludge 161
RICHARD, J. & PITON, C. Semi-log model for interpreting the results of swabbing surfaces naturally contaminated 243
RIHS, J. D. *see* STOUT, J. E.
RIMPILÄINEN, M. A., NISKASAARI, K., JUUTINEN, K. M. S., NURMIAHO-LASSILA, E-L. & FORSÉN, R. I. The plasma membrane of *Streptococcus cremoris*: isolation and partial characterization 389
ROBERTS, P. V. *see* BERG, J. D.
ROCH, K. *see* BOCKEMÜHL, J.
RODRIGUES, U. M. *see* KROLL, R. G.
ROSAS, S. B. *see* CARRANZA, M. M.
ROY, S. K., MISHRA, A. K. & NANDA, G. A carbon source-dependent antimetabolite sensitivity test in *Bacillus megaterium* B71 for isolation of ethionine resistant mutants 29
RUMBELOW, J. E. *see* DADD, A. H.
RUSSELL, A. D. *see* ISMAEEL, N.
RUSSELL, C. *see* CRAWFORD, I.
SADDLER, G. S., GOODFELLOW, M., MINNIKIN, D. E. & O'DONNELL, A. G. Influence of the growth cycle on the fatty acid and menaquinone composition of *Streptomyces cyaneus* NCIB 9616 51
SEN, S. & CHAKRABARTY, S. L. Amylase from *Lactobacillus cellobiosus* D-39 isolated from vegetable wastes: Purification and characterization 419
SHAIKH, M.-K. G. *see* DIAS, F. F.

SHINRIKI, N. *see* ISHIZAKI, K.
SILLEY, P. The effect of plant alkaloids on *in vitro* rumen microbial fermentations 45
SIMIDU, U. *see* IMADA, C.
SIMON, B. M. *see* JONES, J. G.
SINGH, J. *see* BURNETT, A. M.
SMELT, J. P. P. M. *see* BOM, I. J.
SNYGG, B. G. *see* EINARSSON, H.
STEWART, C. S. *see* CHESSON, A.
STEWART, D. J. *see* WARDELL, J. N.
STOUT, J. E., BEST, M. G., YU, V. L. & RIHS, J. D. A note on symbiosis of *Legionella pneumophila* and *Tatlockia micdadei* with human respiratory flora 297
STRÖM, G. B. Cross-point determination of *Penicillium* conidia—Characterization of closely-related fungi 557
SUBRAMANIAN, T. A. V. *see* BHATNAGAR, R. K.
SUBRAMANYAM, V. R. *see* DIAS, F. F.
TAGA, N. *see* IMADA, C.
THOMPSON, J. K. & HOLDING, A. J. Plasmids of *Staphylococcus aureus* associated with live and processed poultry 277
THOMSON, J. A. *see* HENDSON, M.
TORRIANI, S. *see* DELLAGLIO, F.
TRANTER, H. S. *see* REYNOLDS, D.
UPTON, M. E. *see* MORAN, A. P.
VAN DER ZEE, H. *see* MOSSEL, D. A. A.
VAN NETTEN, P. *see* MOSSEL, D. A. A.
VENKITASUBRAMANIAN, T. A. *see* BHATNAGAR, R. K.
VERRIPS, C. T. *see* BOM, I. J.
VON HUSBY, K. O. & NES, I. F. Changes in the plasmid profile of *Lactobacillus plantarum* obtained from commercial meat starter cultures 413
WACHER-VIVEROS, M. C. *see* OWENS, J. D.
WALKER, S. J. & GILMOUR, A. A comparison of media and methods for the recovery of *Yersinia enterocolitica* and *Yersinia enterocolitica*-like bacteria from milk containing simulated raw milk microfloras 175
WARDELL, J. N., BATTERSBY, N. S. & STEWART, D. J. A note on the control of sulphate-reducing bacteria in seawater by u.v. irradiation 73
WOHLERS, B. *see* BOCKEMÜHL, J.
WOKATSCH, R. *see* BOCKEMÜHL, J.
WONG, W. C. & HUGHES, I. K. *Sclerotium cepivorum* Berk. in onion (*Allium cepa* L.) crops: isolation and characterization of bacteria antagonistic to the fungus in Queensland 57
WOOLFSON, A. D. *see* GORMAN, S. P.
YU, V. L. *see* STOUT, J. E.
ZIPPERLE, G. F. *see* BURNETT, A. M.

Index of Subjects

Adherence (GORMAN, MCCAFFERTY, WOOLFSON & ANDERSON) 311
Aflatoxin biosynthesis (BHATNAGAR, AHMAD, MUKERJI & SUBRAMANIAN) 135
Agrocin-encoding plasmid (HENDSON & THOMSON) 147
Ammonium propionate (MAGAN & LACEY) 221
Amylolytic *Bacillus* species (PRETORIUS, DE KOCK, BRITZ, POTGIETER & LATEGAN) 351
Amylolytic bacteria (MACFARLANE & ENGLYST) 195
Anabaena cylindrica (LOVE & RAWSON) 143
Antibiotic resistance (JONES, GARDENER, SIMON & PICKUP) 443
Antimicrobial resistance (MOLITORIS, KRICHEVSKY, FAGERBERG & QUARLES) 111
Bacillus cereus in bread (KAUR) 513
Bacillus megaterium (ROY, MISHRA & NANDA) 29
Bacillus spores (HARDING & JOHNSON) 227
Bacillus spores (ISHIZAKI, SHINRIKI & MATSUYAMA) 67
Bacteria on cotton and polyester (HSIEH & MERRY) 535
Biological control of take-all (CAPPER & CAMPBELL) 155
Campylobacter jejuni (MORAN & UPTON) 103
Carbaryl metabolism (LARKIN & DAY) 233
Cellulolysis (CHESSON, STEWART, DALGARNO & KING) 327
Chlorhexidine (ISMAEEL, EL-MOUG, FURR & RUSSELL) 361
Chlorine dioxide (BERG, ROBERTS & MATIN) 213
Chlortetracycline (MOLITORIS, KRICHEVSKY, FAGERBERG & QUARLES) 185
Clostridium perfringens type A enterotoxin (REYNOLDS, TRANTER & HAMBLETON) 517
Conductimetric microbiological assays (OWENS & WACHER-VIVEROS) 395
Diaminopimelic acid (MASSON & LING) 341
Electrophoretic protein patterns (BOM, SMELT, KERSTERS & VERRIPS) 483
Ethylene oxide (DADD & RUMBELOW) 425
Fluorescence (BRAZIER) 121
Genetic relatedness (CHAKRABARTI, MISHRA & CHAKRABARTTY) 463
Hyphal development (GORMAN, MCCAFFERTY, WOOLFSON & ANDERSON) 319
Inhibitor systems (PHILLIPS & GRIFFITHS) 491
Instructions to authors 1
Isolation of salmonellas (RHODES & QUESNEL) 161
Klebsiella pneumoniae (BOZZINI, KOHN, JOSEPH, HERSZAGE & CHIRIFE) 375
Lactic acid bacteria (DELLAGLIO & TORRIANI) 83
Lactobacillus cellobiosus (SEN & CHAKRABARTY) 419
Legionella pneumophila (STOUT, BEST, YU & RIHS) 297
Listeria monocytogenes (AL-GHAZALI & AL-AZAWI) 251
Measurement of antibiotic resistance (JONES, GARDENER, SIMON & PICKUP) 455
Niacin assay (EINARSSON & SNYGG) 15
Nitrogen metabolism (BHATNAGAR, AHMAD, MUKERJI & VENKITASUBRAMANIAN) 203
Obituary 269
Oral bacteria (HUDSON, DONOGHUE & PERRONS) 301
Parathion (CARRANZA, ROSAS & GHITTONI) 9
Pasteurized milk (KROLL & RODRIGUES) 21
p-Cresol assimilating bacteria (EL-MANSI) 545
Penicillium conidia (STRÖM) 557
Peroxide sensitivity (MACKEY & DERRICK) 501
Phages and bacteria in faeces (HAVELAAR, FURUSE & HOGEBOOM) 255
Plasma membrane (RIMPILÄINEN, NISKASAARI, JUUTINEN, NURMIAHO-LASSILA & FORSÉN) 389
Plasmid profile (VON HUSBY & NES) 413
Propionate metabolism (MAGAN & LACEY) 169
Proteinase synthesis (MCKELLAR & CHOLETTE) 37
Pseudomonas stutzeri (HOLMES) 401
Recovery methods (WALKER & GILMOUR) 175
Rumen fermentation (SILLEY) 45
Salmonella typhimurium (OBAFEMI & DAVIES) 381
Scanning electron microscopy (FRASER & GILMOUR) 527
Sclerotium cepivorum (WONG & HUGHES) 57
Soft rot erwinias (PEROMBELON & HYMAN) 61
Spore release (BURNETT, EZZELL, SINGH, ZIPPERLE & DOYLE) 337
Staphylococci (ADEGOKE) 97
Staphylococcus aureus (THOMPSON & HOLDING) 277
Streptococcal adhesion (CRAWFORD & RUSSELL) 127
Streptomyces cyaneus (SADDLER, GOODFELLOW, MINNIKIN & O'DONNELL) 51
Subtilisin inhibitors (IMADA, MAEDA, HARA, TAGA & SIMIDU) 69
Survival of salmonellas (GADRE, RANADE & GODBOLE) 93

Swab interpretation (RICHARD & PITON) 243
Thermotrophic Enterobacteriaceae (MOSSEL, VAN DER ZEE, HARDON & VAN NETTEN) 289
Tunicamycin resistance (DIAS, SHAIKH, BHATT, MODI & SUBRAMANYAM) 271
u.v. sterilization (WARDELL, BATTERSBY & STEWART) 73
Vibrios (BOCKEMÜHL, ROCH, WOHLERS, ALEKSIC, ALEKSIC & WOKATSCH) 435
Wine yeasts (HEARD & FLEET) 477